SOV/51-6-2-20/39

AUTHORS: Grum-Grzhimaylo, S.V., Brilliantov, N.A. and Sviridova, R.K.

TITLE: The Absorption Spectra of Vanadium-Coloured Corundum at Low Temperatures (Down to 1.7°K). (Spektry pogloshcheniya korunda, okrashennogo vanadiyem, pri nizkikh temperaturakh (do 1.7°K)))

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 238-239 (USSR)

ABSTRACT: The authors obtained the absorption spectra of plane-parallel plates, cut parallel to the optical axis, of vanadium-coloured corundum crystals. The plates were of 28 mm thickness. Measurements were made at low temperatures down to 1.7°K. The records obtained (e.g. Fig a on p 239) show clearly that the absorption spectrum consists of a series of vibrational bands, separated by approximately equal distances from one another. The observed structure agrees fully with Krivoglaz and Pekar's theory (Ref 2). The vibrational structure becomes clearer at 1.7°K, compared with the structure obtained by Grum-Grzhimaylo et al. (Ref 1) at 100°K. The number of bands, in the direction of short wavelengths starting from the narrowest vibrational band, increases from 5-6 to 8-9 on the lowering of the temperature from 100° to 1.7°K. Figs 6 and 8 show bands at 293°K in the blue region, obtained using the

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The Absorption Spectra of Vanadium-Coloured Corundum at Low Temperatures (Down to 1.7°K

ordinary and the extraordinary waves respectively. Fig 5 shows the bands at the violet end obtained at 1.7°K. Fig 6 shows the ordinary (I) and the extraordinary (II) bands at 1.7, 4.2, 77 and 290° (the temperature increases going down in this figure). Fig 8 is a record of the 4756 and 4757 Å band profiles. In all figures III represents the iron spectraum used for calibration. Acknowledgments are made to A.I. Shal'nikov for his advice. There are 6 figures and 3 Soviet references.

SUBMITTED: June 14, 1958

Card 2/2

SOV/51-6-2-21/39

AUTHORS: Grum-Grzhimaylo, S.V., Brilliantov, N.A., Sviridova, R.K. and Dzhamalova, A.S.

TITLE: The Absorption Spectra of Rubies at Low Temperatures (Down to 1.7°K) (O Spektrakh pogloshcheniya rubinov pri nizkikh temperaturakh [do 1.7°K])

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 240-242 (USSR)

ABSTRACT: The authors used an ISP-51 glass spectrograph to study the absorption spectra of rubies at the temperatures of liquid nitrogen, hydrogen and helium. Measurements were made in polarized light: the spectra were obtained both for the ordinary and extraordinary waves. Samples were in the form of plane-parallel plates of 0.4-2.3 mm thickness, cut parallel to the optical axis of rubies. Colour of rubies is due to two absorption bands (Figs a and b on p 241): one in the visible region and the other at the boundary between the visible and the ultraviolet regions. Figs a and b represent the spectra obtained using the ordinary and the extraordinary waves respectively. For a sample number 88 with 1.24% of Cr_2O_3 a narrow vibrational band in the ordinary light was observed at 5967 Å, and at 5960 Å in the extraordinary light (Figs a, b and g, obtained at 1.7°K). In the violet region two intense, strongly

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The Absorption Spectra of Rubies at Low Temperatures (Down to 1.7°K)

polarized absorption lines were observed at 4761 and 4746 Å (Figs a, b and v obtained at 1.7°K). The results obtained agree well with Krivoglaz and Pekar's theory (Ref 6). The authors used rubies containing various amounts of chromium. They found that on increase of the amount of Cr the positions of the absorption bands remained the same but the number of observed bands decreased. Acknowledgments are made to A.I. Shal'nikov for his advice. There are 4 figures and 8 references, 6 of which are Soviet, 1 German and 1 Indian.

SUBMITTED: June 14, 1958

GRUM-GRZHIMAYLO, S.V.; BRILLIANTOV, N.A.; SVIRIDOVA, R.K.; SUKHANOVA, O.N.

Changes in the absorption spectrum arising when the temperature of some nickel-colored synthetic crystals is lowered. Kristallografiia 5 no.2:288-294 Mr-Ap '60. (MIRA 13:9)

1. Institut kristallografii AN SSSR i Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Nickel sulfate--Spectra)

24,3300

39692
S/051/62/013/001/014/019
E039/E420

AUTHORS: Grum-Grzhimaylo, S.V., Brilliantov, N.A., Sviridova, R.K., Sukhanova, O.N., Kapitonova, M.M.

TITLE: Absorption spectra of iron-coloured beryls at temperatures from 290 to 1.7°K

PERIODICAL: Optika i spektroskopiya, v.13, no.1, 1962, 133-134

TEXT: Results obtained by the authors are compared with the earlier work of M. Dvir and W. Low (Phys. Rev., 119, 1960, 1587) who investigated one sample of blue aquamarine beryl at temperatures of 290 and 20°K. Measurements were made on the polarization of light in the absorption spectra of six samples of iron beryls with different colours: yellow, green-yellow and blue at temperatures of 1.7, 4.2, 77 and 290°K. The wide absorption band observed at 270°K in the near infrared is accounted for by the presence of Fe^{2+} ions and the absorption band in the ultraviolet with a maximum at about 26780 cm^{-1} by the presence of Fe^{3+} ions. These latter bands in the ultraviolet for

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S/051/62/013/001/014/019
E039/E420

Absorption spectra ...

the iron beryls are not observed in the blue aquamarine. At 77°K very weak narrow absorption bands are observed which become more distinct at 4.2°K. In all samples the extraordinary waves are polarized in the 17190 and 18620 cm^{-1} bands, particularly in the green-yellow beryl no.209 having a maximum thickness of 6.83 mm. There is also a weak unpolarized band at 21520 cm^{-1}. The 18620 and 21520 bands are not given in the work of Dvir and Low. In all samples the extraordinary waves are completely polarized in the 26780 cm^{-1} band. Dvir and Low observed bands at 26500 and 17590 cm^{-1} which are sufficiently near to the authors' at 26780 and 17190 cm^{-1}. No further change in the absorption spectra were discovered on reducing the temperature to 1.7°K. The five absorption bands presented by Dvir and Low in their paper were interpreted as due to transitions between levels in Fe^{3+} ions, separated in the octahedral crystal field. The bands observed near to these of Dvir and Low are interpreted as the band 26780 cm^{-1} transition in Fe^{3+} $^6A_o(d\gamma^3 d\gamma^2) \rightarrow {}^4T_2(d\gamma^3 d\gamma^2)$ and the band 17190 cm^{-1} as the $^6A_o(d\gamma^3 d\gamma^2) \rightarrow {}^4T_2(d\gamma^4 d\gamma)$ transition.

Card 2/3

S/051/63/014/002/007/026
E039/E120

AUTHORS: Grum-Grzhimaylo, S.V., Brilliantov, N.A., Sviridov, D.T., Sviridova, R.K., and Sukhanova, O.N.

TITLE: Absorption spectra of crystals containing Fe^{3+} for temperatures down to 1.7 °K

PERIODICAL: Optika i spektroskopiya, v.14, no.2, 1963, 228-233

TEXT: The absorption spectra of demantoid-garnet ($Ca_3Fe_2Si_3O_{12}$), vesuvianite ($H_2Ca_{10}(MgFe)Al_4Si_6O_{18}$) and epidote ($Ca_2(AlFe)O(Si\ O_4)[Si_2O_7]OH$) are obtained at temperatures of 290, 77, 4.2 and 1.7 °K. The spectra were obtained in polarized light using a СФ-4 (SF-4) spectrograph for observations at 290 °K, and quartz ИСП-22 (ISP-22) and glass ISP-51 spectrographs at the lower temperatures. In these crystals the color is produced by the isomorphous substitution of Fe^{3+} ions for Al^{3+}. At room temperature the absorption spectra of these crystals show wide bands characteristic of material containing Fe^{3+} ions. At low temperatures these bands are narrower. The position of these bands for demantoid and epidote is shown in the table.

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Absorption spectra of crystals ... S/051/63/014/002/007/026
E039/E120

Position of narrow absorption bands, cm^{-1}

Демантоид (Demantoid)

I	1.7°	22760 (с)*	22970 (ср)	23060 (ср)	23300 (сл)	23550 (о. сл)	23720 (сл)	23970 (сл)	24450 (ср)
	4.2	(с)	(ср)	(ср)	(сл)	(о. сл)	(сл)	(сл)	(ср)
	77	(с)	(ср)	(ср)	(сл)	(о. сл)	(о. сл)	(о.л)	(сл)
II	1.7	25930 (с)	26090 (о. сл)	26270 (ср)	26490 (сл)	26730 (ср)	26980 (о. сл)	27300 (ср)	
	4.2	(с)	(о. сл)	(ср)	(сл)	(ср)	(о. сл)	(ср)	
	77	(с)	(о. сл)	(сл)	(о. сл)	(ср)	—	—	

Эпидот (Epidot)

	band I полоса	band II полоса	band III полоса	band IV полоса (поляризо-вана **) (polarized)
1.7°	21500 (с)	22100 (с)	22620 (о. сл)	23040 (сл)
4.2	21500 (с)	22100 (с)	22620 (о. сл)	23040 (сл)
77	21300 (ср)	22030 (с)	22620 (о. сл)	—
290	21080 (сл) (р)	21950 (ср) (р)	—	—

с - strong, ср - medium, сл - weak, о. сл - very weak, р - diffuse.

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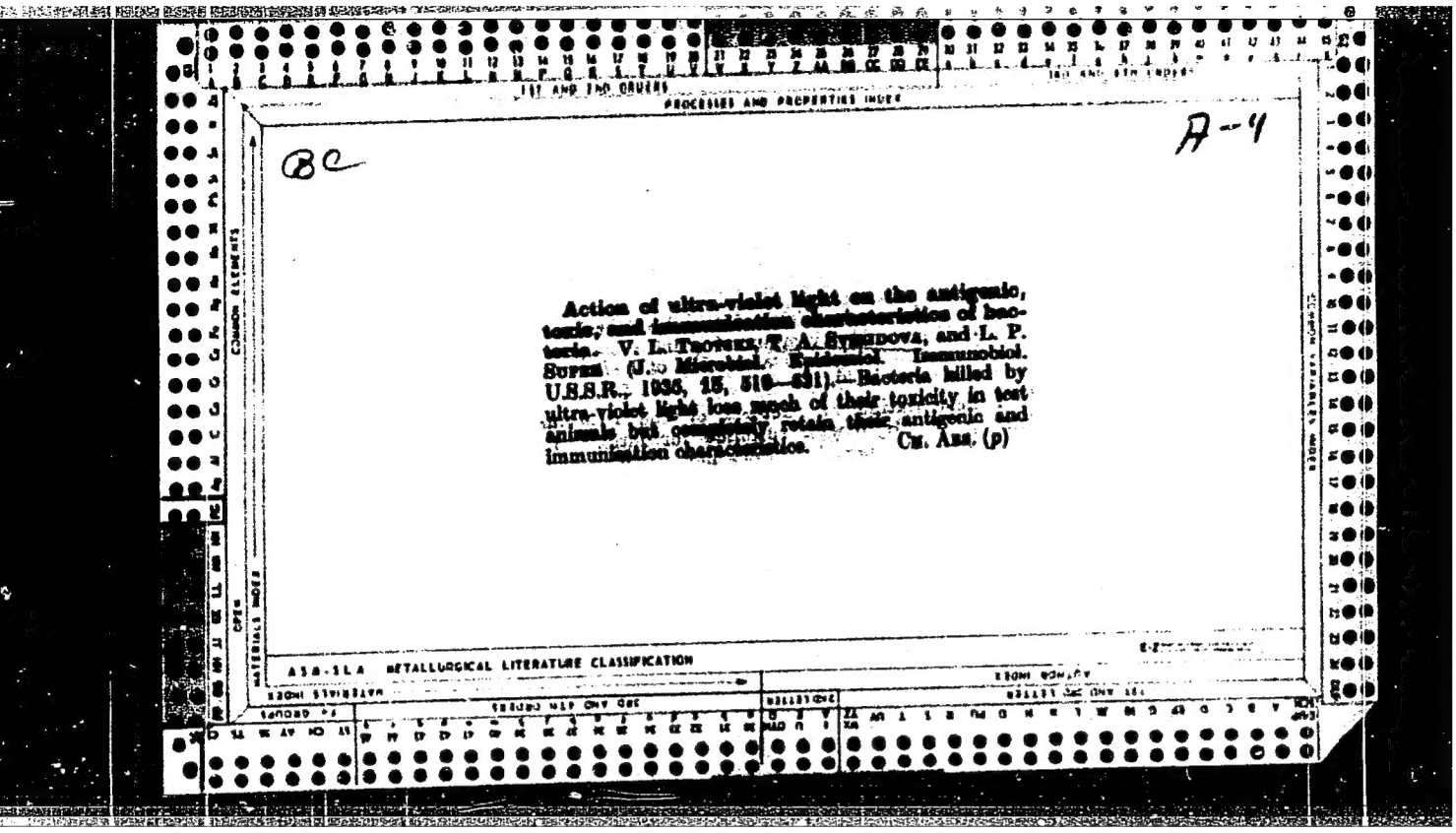

BC

A-4

Action of ultra-violet light on the antigenic, toxic, and immunization characteristics of bacteria. V. L. Tsotsuk, T. A. Sysoeva, and L. P. Supek. (J. Microbiol., Epidemiol., Immunobiol. U.S.S.R., 1936, 15, 519—531).—Bacteria killed by ultra-violet light lose much of their toxicity in test animals but comparatively retain their antigenic and immunization characteristics. Ch. Abs. (p)

A 58-5 LA METALLURGICAL LITERATURE CLASSIFICATION

SVIRIDOVA, T. A.

"Concerning the Diffusion Factor in Certain Species of Bacteria and a Method for its Determination", Zhur Mikrobiol, Epidemiol i Immunobiol, No. 1, pp 51-53, 1950.

SVIRIDOVA, T.A.

USSR

The effect of streptothricin on the normal microflora of the intestines. V. L. Troitskii, T. A. Sviridova, and N. I. Mel'tser. *Trudy Akad. Med. Nauk S.S.S.R.* 5, *Voprosy Khimioterap. Bakteriol. Infektsii.* No. 1, 146-55(1950).—The per os administration of streptothricin to rabbits causes a sharp reduction and in some instances complete elimination of *Escherichia coli* in the intestines. The min. dose which causes a reduction in no. of lactose-fermenting bacteria in the intestine of rabbits is approx. 7000 units/kg.
B. S. Levine

Sviridova, T.A.

USSR.

The action of streptothricin and of streptomycin in experimental Bacillus typhi abdominalis infection. T. A. Sviridova. *Trudy Akad. Med. Nauk S.S.S.R.* 5, *Voprosy Khimioterap. Bakterial. Infektsii* No. 1, 205-21(1950).—Death due to lethal doses of *B. typhi abdominalis* can be prevented in white mice by the simultaneous injection of appropriate doses of streptothricin(I) and streptomycin(II). When injected simultaneously with small doses of the pathogens, I and II prevent the passage of the bacteria to the spleen (and other organs). Repeated injections of large doses of II or I 12 hrs. or longer after the exptl. infection fails to clear the organs from the infection. When injected 3 hrs. after the infection, I merely delays death. When administered per os following per os inoculation of mice with *B. typhi abdominalis*, I destroys the bacterial cells and drastically reduces the no. of lactose-fermenting intestinal bacteria and in some instances completely eliminates them. The prophylactic administration to mice of sulfadiazine simultaneously with the exptl. infection prolongs the life of the greater part of the exptl. animals and completely aborts the infection in some. It does not render sterile the internal organs even in small-dose exptl. infections. The enhanced synergystic therapeutic effect of I and sulfadiazine combined is insignificant. This is equally true of repeated massive injections of the combination of the two antibiotics. The prophylactic effect of either streptomycin or of I is superior to that of sulfadiazine. B. S. Levine

SVIRIDOVA, V.

South American diplomas. Radio no.6:16 Je '65. (MIRA 18:10)

1. Starshiy instruktor-metodist TSentral'nogo radiokluba SSSR.

86294
S/190/60/002/008/005/017
B004/B054

15.8107 2209

AUTHORS: Baramboym, N. K., Sviridova, V. A.

TITLE: Destruction of Low-pressure Polyethylene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 8, pp. 1193-1195

TEXT: The authors studied the control of the molecular weight of low-pressure polyethylene to lower the temperature of its processing and improve its plastic properties. For this purpose, they used mechanical destruction and cracking under the action of free radicals generated by initiators. To obtain comparable data on the effect of destruction, experiments were conducted both with nonstabilized polyethylene and with addition of acceptors (Captax, Neozone D), monomers (α-bromo styrene, maleic anhydride), and initiators (benzoyl peroxide, isopropyl benzene hydroperoxide, tert-butyl benzene hydroperoxide). Additions amounted to 2% of the polymer. Mechanical treatment was conducted by rollers which were cooled by water to 20-25°C, or heated by vapor to 130°C. Cracking was performed in a thermostat at 170° and 200°C. The efficiency of destruction was tested: 1) by determining

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the solubility in toluene at 100°C; 2) by determining the softening temperature; 3) by determining the intrinsic viscosity of the 1% solution in Decalin at 135°C. The results for polyethylene with an initial molecular weight of 300,000 are given in three tables containing the following data:

Addition	Solubility,%	Softening temperature	Molecular weight	
			cold-rolled, 30°C	rolled at 130°C
without addition	37	133	250,000	practically unchanged
Neozone D	58	129	158,000	
maleic anhydride	60	128	126,000	
Captax	64	128	112,000	-
α-bromo styrene		127	112,000	79,500
i-butyl hydroperoxide		127	126,000	31,600
i-propyl hydroperoxide		123	100,000	28,800
benzoyl peroxide	51	117	-	20,400

The dependence of the solubility of low-pressure polyethylene, rolled with

benzoyl peroxide, on the duration of thermal treatment at 170° and 200°C is shown by Fig. 1. Hence, it appears that the effect of destruction by free radicals has a maximum. The solubility decreases with prolonged treatment due to new structuration. Thus, it is possible with the method described to change the molecular weight and properties of low-pressure polyethylene in a wide range, and make them similar to those of high-pressure polyethylene (solubility 100%, softening temperature 110°C). The authors mention V. A. Kargin and T. I. Sogolova. There are 1 figure, 3 tables, and 6 Soviet references.

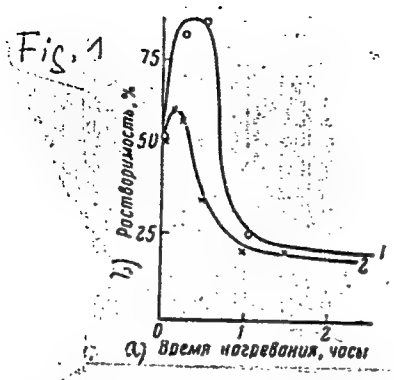
ASSOCIATION: Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti (Moscow Technological Institute of the Light Industry)

SUBMITTED: March 2[illegible], 196[illegible]

86294

S/190/60/002/008/005/017
B004/B054

Fig. 1



Legend to Fig. 1: Change in solubility of low-pressure polyethylene rolled with 2% benzoyl peroxide with subsequent thermal treatment 1): 170°C; 2): 200°C, a): time of heating, hours; b): solubility.

Card 4/4

SVIRIDOVA, V.N., aspirant.

Mechanized chemical weed control on grain fields. Dokl. TSKhA no.27: 162-166 '57. (MIRA 11:4)
(Spraying and dusting equipment) (Herbicides)

SVIRIDOVA, V.P., prepodavatel'

[Accounting and operational technique of the State Bank; program and methodological instructions for third year students attending correspondence schools in accounting and credit and specializing in "Currency circulation and credit" for the 1959 - 1960 school year] Uchet i operatsionnaia tekhnika v Gosbanke; programma i metodicheskie ukazaniia dlia uchashchikhsia - zaochnikov III kursa uchetno-kreditnykh tekhnikumov po spetsial'nosti "Denezhnoe obrashchenie i kredit" na 1959/60 uchebnyi god. Moskva, 1959. (MIRA 12:10)
31 p.

1. Gosudarstvennyy bank, Moscow. Upravleniye uchebnymi zavedeniyami.
(Banks and banking)

SVIRIDOVA, V.P., prepodavatel'

[Accounting and operational technique of the State Bank; program and methodological instructions for third year students attending correspondence schools in accounting and credit and specializing in "Accounting and operational technique of the State Bank" for the 1959-1960 school year] Uchet i operatsionnaia tekhnika v Gosbanke; programma i metodicheskie ukazaniia dlia uchashchikhsia-zaochnikov III kursa uchetno-kreditnykh tekhnikumov po spetsial'nosti "Uchet i operativnaia tekhnika v Gosbanke" na 1959/60 uchebnyi god. Moskva, 1959. 40 p. (MIRA 12:10)

1. Gosudarstvennyy bank, Moscow. Upravleniye uchebnymi zavedeniyami.
(Banks and banking--Accounting)

SVIRIDOVA, Ye.I.

Comparative evaluation of methods for treating epilepsy. (MIRA 11:9)
Sov.med. 22 no.6:27-30 Je '58

1. Iz psikhiatricheskoy kliniki (dir. - deystvitel'nyy chlen AMN SSSR Ye.A. Popov) imeni S.S. Korsakova I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(EPILEPSY, ther.
anticonvulsants, comparative evaluation (Rus))
(ANTICONVULSANTS, ther. use.
epilepsy, comparisons (Rus))

SVIRIDOVA, Ye.I.

Differential treatment of epilepsy. Trudy 1-go MMI 25:317-329 '63.
(MIRA 17:12)

1. Kafedra psikhiatrii 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov).

SVIRIDOVA, Ye.I.

Treatment of epilepsy with kalypnon. Trudy 1-go MMI 25:330-333 '63.
(MIRA 17:12)

1. Kafedra psikhiatrii 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov).

SVIRIDOVA, Ye.I.

Treatment of epilepsy with epimide. Trudy 1-go MMI 25:334-337 '63.
(MIRA 17:12)

1. Kafedra psikhiatrii 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova (zav. kafedroy prof. V.M.Banshchikov).

SVIRIDOVA, Z.

The problem of the characteristics of cyclical replacement of the means of production in postwar England. Vop.ekon. no.6:127-133 My '56. (MLRA 9:8)
(Great Britain--Economic conditions)(Great Britain--Industries)

PA 32/49T59

SVIRIDOVA, Z. A.

USSR/Metals Sep 48
Austenite
Magnetic Susceptibility

"The Magnetic Susceptibility of Austenite Steel," Z. A. Sviridova, G. V. Estulin, Moscow Steel Inst imeni I. V. Stalin, 2½ pp

"Zhur Tekh Fiz" Vol XVIII, No 9

Authors have designed special apparatus enabling paramagnetic susceptibility of metals to be measured by Faraday's method (see "Zavod Lab," XII, 76). Gives results of tests on austenite steel of composition 0.45% C, 14.4% Cr, 15.0% Mn, and 2.5% W. Submitted 25 Mar 48. [redacted]

32/49T59

MANUKYAN, A.A.; GLUSHKOV, V.P.; SHVEDKOVA, V.M.; SVIRIDOVA, Z.P.; CHEBOTAREVA, Ye.A.; SHUMILIN, V.I.; PUDINA, K.V.; BRAGINA, N.M.; LUTSKAYA, Ye.Ye.; KODACHENKO, A.S.; KOSOVA, V.A.; MOKLYARSKIY, B.I.; GRECHIKHIN, A.A.; KULIKOV, N.I.; RYDVANOV, N.F.; BEL'CHUK, A.I.; VINTSER, Yu.I.; ROZENTAL', Ye.I.; BELOUS, T.Ya.; SIDOROV, V.F.; ZHDANOVA, L.P.; ALEKSANDROVSKAYA, L.I.; KOVAL', V.V.; KHAVINSON, Ya.S., glavnyy red.; SOKOLOV, I.A., zam.glavnogo red.; ALEKSEYEV, A.M., red.; ARZUMANYAN, A.A., red.; BELYAKOV, A.S., red.; BECHIN, A.I., red.; VARGA, Ye.S., red.; LEMIN, I.M., red.; LYUBIMOVA, V.V., red.; SKOROV, G.Ye., red. V redaktirovanii uchastvovali: SHAPIRO, A.I., red.; TATISHCHEV, S.I., KOVRIGINA, Ye., tekhn.red.

[Economic conditions of capitalistic countries; review of business conditions for 1958 and the beginning of 1959] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon"iunkturnyi obzor za 1958 g. i nachalo 1959 g. Moskva, Izd-vo "Pravda," 1959. 127 p. (Prilozhenie k zhurnalu "Mirovaia ekonomika i mezhdunarodnye otnosheniia," no.8, avgust 1959 g.) (MIRA 12:9)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhdunarodnykh otnosheniy. 2. Kollektiv sotrudnikov kon"yunkturnogo sektora Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy AN SSSR (for Glushkov, Shvedkova, Sviridova, Chebotareva, Shumilin, Pudina, Bragina, Lutskaya, Kodachenko, Kosova, Moklyarskiy, Grechikhin, Kulikov, Rydvanov, Bel'chuk, Vintser, Rozental', Belous, Sidorov, Zhdanova, Aleksandrovskaya, Koval'). (Economic conditions)

MANUKYAN, A.A.; RYDVANOV, N.F.; BELOUS, T.Ya.; SVIRIDOVA, Z.P.; CHEBOTAREVA, Ye.A.; SHUMILIN, V.I.; PUDINA, K.V.; LUTSKAYA, Ye.Ye.; BRAGINA, N.M.; SANDAKOV, V.A.; MUSSO, S.; ZABLOTSKAYA, A.I.; VDOVICHENKO, D.I.; MIRKINA, I.Z.; MORENO, I.; SIDOROV, V.F.; MOKLYARSKIY, B.I.; GRECHIKHIN, A.A.; KOSOVA, V.A.; KULIKOV, N.I.; ZHDANOVA, L.P.; ROZENTAL', Ye.I.; PETRANOVICH, I.M.

[Economic conditions of capitalist countries; survey of economic trends in 1961 and the beginning of 1962] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon'iunkturnyi obzor za 1961 g. i nachalo 1962. g. Moskva, Izd-vo "Pravda," 1962. 157 p. (MIRA 16:9)

1. Sotrudniki kon"yunkturnogo sektora Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy AN SSSR.
(Economic history)